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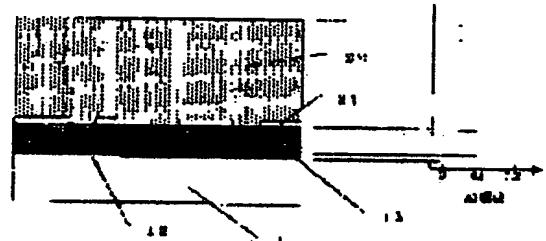
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## 54) NITRIDE SEMICONDUCTOR ELEMENT, METHOD FOR MANUFACTURING NITRIDE SEMICONDUCTOR CRYSTAL, AND NITRIDE SEMICONDUCTOR SUBSTRATE

## 57)Abstract:

PROBLEM TO BE SOLVED: To form an AlGaN layer having such a thickness that the layer can sufficiently function as a crystal growing base layer with a low defect density.

SOLUTION: A first AlGaN layer 13 is formed on a sapphire substrate 11 through a low-temperature buffer layer 12. Then a second AlGaN layer 14 containing Al at a concentration lower than that of the first AlGaN layer 13 is formed on the layer 13. The layer 14 is grown while a facet structure is formed from the opening of a mask 21. The thickness of the layer 14 is adjusted to  $\geq 5 \mu\text{m}$ .



## LEGAL STATUS

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